What is claimed is:

1. An objective having lens units, each of which is constructed with single lenses, and a numerical aperture of 0.7 or more, the objective comprising, in order from an image side:

a first lens unit including a positive meniscus lens with a convex surface facing an image side, at least two negative lenses, and at least two positive lenses, and having negative power as a whole;

a second lens unit including a negative lens and a positive lens so that a radius of curvature of a surface of the negative lens, adjacent to the positive lens, is smaller than a radius of curvature of an opposite surface thereof;

a third lens unit including biconvex positive lenses and biconcave negative lenses which have different media, so that two of the biconvex positive lenses are arranged on the object side and the image side, and having positive power as a whole; and

a fourth lens unit including a negative meniscus lens and at least one positive meniscus lens, and having positive power as a whole,

the objective satisfying the following condition:

$$0 < | Rmin / Rmax | < 0.5$$

where Rmin is the radius of curvature of the surface of the negative lens, adjacent to the positive lens, in the second lens unit and Rmax is the radius of curvature of the opposite surface thereof.

2. An objective according to claim 1, further satisfying the following condition:

$$1 < | FL2 / FL3 |$$

where FL2 is a focal length (mm) of the second lens unit and FL3 is a focal length (mm) of the third lens unit.

3. An objective according to claim 1, further satisfying the following condition:

$$-1.5 < FL1 / FL234 < -1$$

where FL1 is a focal length (mm) of the first lens unit and FL234 is a synthesized focal length (mm) of the second lens unit to the fourth lens unit.

4. An objective according to claim 1, wherein the single lenses are constructed of quartz and fluorite.

5. An objective according to claim 1, wherein each of the first lens unit, the third lens unit, and the fourth lens unit has air spacing between a positive lens and a negative lens of different media and includes at least one pair of lenses so as to satisfy the following conditions:

$$d / L < 0.025$$

$$0.58 < Rp / Rn < 1.73$$

where L is a parfocal distance (mm) of the objective, d is the air spacing (mm), Rp is a radius of curvature of a surface with positive power, of the positive lens and the negative lens facing each other with air spacing therebetween, and Rn is a radius of curvature of a surface with negative power thereof.

6. An objective according to any one of claims 1-5, wherein at least one pair of lenses are constructed so that a negative lens and a positive lens of different media are arranged with air spacing therebetween, and the negative lens and the positive lens are constructed of quartz and fluorite, respectively.

7. An objective according to any one of claims 1-5, further satisfying the following condition:

$$Ri < Ro$$

where Ri is a radius of curvature of an image-side surface of at least one negative lens in the first lens unit and Ro is a radius of curvature of an object-side surface

thereof.

8. An objective according to any one of claims 1-5, further satisfying the following condition:

$$| DUVfp - IRfp | \leqq 12\ \mu m$$

where DUVfp is an imaging position on the object side in a deep ultraviolet region and IRfp is an imaging position on the object side of wavelength in an infrared region.